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| JOHN RICHARD MERKLING 11171 WEST EXPOSITION DRIVE LAKEWOOD, CO 80226-3867 | | | EXAMINER KRAMER, NICOLE R | |
| | | | ART UNIT 3762 | PAPER NUMBER |

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/605,529 | Applicant(s) FISCHER ET AL. | |
| | Examiner Nicole R. Kramer | Art Unit 3762 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-26 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 12-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/6/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-20 are objected to because of the following informalities: in claims 1 and 10, "said connector having a central bore a plurality of electrical contacts" should be --said connector having a central bore, a plurality of electrical contacts--. Appropriate correction is required.
2. Claims 10-20 are objected to because of the following informalities: claim 10 recites "a plurality of connector seals, each connector seal configured to surround an electrical contact on said case and an electrical contact on said connector when **said connectors** are in contact with each other" (emphasis added). "Said connectors" does not have proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 9-10, 16-17, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,516,820 ("the '820 Kuzma patent").

The '820 Kuzma patent discloses an implantable medical apparatus (a cochlear implant device) comprising an electrical device having a case (electronics assembly is

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contained in a titanium housing or case 10; see col. 3, lines 59-64) and a plurality of electrical contacts on said case (platinum feedthroughs 14 are located on a plate 12, which is attached by welding and brazing to the case 10; see col. 3, lines 59-64), a lead (32) having a distal end and a proximal end and carrying a plurality of electrical conductors (electrode leads 36; see for example col. 4, lines 50-58), a connector coupled to a proximal end of said lead (ceramic plate 30), said connector having a central bore (see col. 5, lines 49-52 and Fig. 1), a plurality of electrical contacts distributed around said bore (plate 30 has identical platinum feedthroughs 34; see col. 4, lines 3-13), each of said contacts being electrically connected to an electrical conductor in said lead (fine wires 36 from the electrodes are welded to the platinum feedthroughs 34; see col. 6, lines 7-20) and being spatially arranged to contact one of said electrical contacts on said case (connection between paired feedthroughs 14 and 34 of the ceramic plates is made via sheet 20 having platinum foil pieces 22; see col. 4, lines 58-68), and a fastener (screw 16 and nut 46; see col. 4, lines 36-49) coupling said connector to said electrical device, said fastener extending through said bore in said connector and having a wide head (head 70; see Fig. 2 and col. 5, lines 39-48. In addition, Examiner notes that nut 46 could also be construed as "a wide head"), said head distributing compressive force over said electrical contacts in said connector (see, for example, col. 6, lines 27-34).

With respect to claim 9, the connector fits within a recess of the housing or case 10 (see Fig. 1).

With respect to claims 10 and 16-17, the '820 Kuzma patent discloses a plurality of connector seals (Examiner considers sheet 20 having a plurality of a platinum foil pieces 22 to be "a plurality of connector seals," as described below), each connector seal configured to surround an electrical contact on said case and an electrical contact on said connector when said connectors are in contact with each other. The '820 Kuzma patent describes that the Silastic sheet 20 tends to bulge in the center of the feedthroughs 14 and 34 at region 80 (see col. 6, line 53 - col. 7, line 31 and Fig. 3). The hollow feedthroughs allow plastic deformation of the Silastic sheet 20 into the holes/space 82, and Examiner thus considers the sheet to necessarily "surround[s] an electrical contact on said case and an electrical contact on said connector when said connectors are in contact with each other." The sheet is be considered "a plurality of connector seals" in that the each individual seal (and subsequently following bulge 80) is formed at slits 88 as described in Figs. 4A-4C.

With respect to claim 20, the '820 Kuzma patent discloses a fastener centrally located on said connector (screw 16 and nut 46; see col. 4, lines 36-49) and wherein said electrical contacts on said connector are symmetrically arranged around said fastener (see Fig. 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-8, 11, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,516,820 ("the '820 Kuzma patent").

As described above, the '820 Kuzma patent discloses a fastener (screw 16 and nut 46; see col. 4, lines 36-49) for coupling a connector to an electrical device. Kuzma fails to disclose that the head of the screw extends over substantially all the electrical contacts. However, the '820 Kuzma patent discloses that alternate fixation mechanisms may be used for holding the connector together to the electrical device (see col. 4, lines 42-49), such as a clip or a screw passing entirely through the package. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the head or the nut of the fastener mechanism disclosed in the '820 Kuzma patent to extend over substantially all the electrical contacts in order to ensure good electrical contact between the paired feedthroughs 14 and 34 of the ceramic plates.

With respect to claim 3, Examiner considers the head (70) of screw 16 and the nut 46 to be substantially disc-shaped. In the alternative, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the head or the nut of the fastener mechanism disclosed in the '820 Kuzma patent to make the nut or the head of the screw a disc shape in order to minimize the size of the cochlear implant.

With respect to claim 4, the fastener comprises a threaded shaft (see Fig. 1).

With respect to claim 5, the contacts around the bore are radially symmetrical around the bore (see Fig. 1).

With respect to claims 6-8, the '820 Kuzma patent fails to disclose that contacts are arranged in a rectangular pattern around the bore. It would have been an obvious matter of design choice to arrange the contacts in a rectangular pattern around the bore, since applicant has not disclosed that the arrangement solves any stated problem or is for any particular purpose and it appears that the claimed invention would perform equally well with the contacts arranged concentrically around the bore.

With respect to claims 11 and 18, the '820 Kuzma patent fails to disclose gaskets circumscribing the electrical contacts. Gaskets are well known in the art for ensuring a tight seal and connection between contacts. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the connector assembly disclosed in the '820 Kuzma patent to include gaskets around the contacts in order to ensure a tight seal and connection between the contacts.

With respect to claim 19, the '820 Kuzma patent discloses a fastener centrally located on said connector (screw 16 and nut 46; see col. 4, lines 36-49) and wherein said electrical contacts on said connector are symmetrically arranged around said fastener (see Fig. 1).

7. Claims 1-11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,321,126 ("the '126 Kuzma patent").

The '126 Kuzma patent discloses an implantable medical apparatus comprising an electrical device having a case and a plurality of electrical contacts on said case (implantable medical device 102 having a header 10 mounted to the edge thereof,

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wherein an array of electrical contacts 12 are molded into the header so as to be exposed; see col. 4, lines 9-20), a lead having a distal end and a proximal end and carrying a plurality of electrical conductors (multi-conductor lead 22), and a connector coupled to a proximal end of said lead (connector pad 20), said connector a plurality of electrical contacts (array of contacts is formed on the bottom surface of pad 20; see col. 4, lines 35-50), each of said contacts being electrically connected to an electrical conductor in said lead (each of the pad contacts 21 is electrically connected to at least one conductor within multi-conductor lead 22; see col. 4, lines 48-50) and being spatially arranged to contact one of said electrical contacts on said case (each contact of the array of contacts 21 is positioned within its array so as to match or be aligned with at least one corresponding contact 12 of the array of contacts formed within the header cavity 11 when the pad 20 is inserted into the cavity; see col. 4, lines 44-48), and a fastener coupling said connector to said electrical device (spring 30 is placed over the connector pad 20 in order to assert and maintain a uniform compression force against the back side of the connector pad 20 so as to force and maintain a firm contact between the electrical contacts 21 of connector pad 20 and the corresponding electrical contacts 12 in the bottom of the header cavity 11; see col. 4, line 60 - col. 5, line 11).

The '126 Kuzma patent fails to disclose that the fastener mechanism extends through a bore located in the connector device (i.e., fails to disclose a screw-type fastener mechanism which extends through a bore of the connector pad 20 and into the IMD housing in order to fasten the connector and the IMD together). Various fastening mechanisms such as screws, clips, or bands are well known in the art for fastening two

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structures together (see, for example, the '820 Kuzma patent at col. 4, lines 34-49 which describes various interchangeable fastening mechanisms, such as screws which require a central hole in the connector and alternative fastening mechanisms such as a collar, ring, or band outside the connector which do not require a central hole in the connector). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to substitute a screw have a wide head for compressive spring 30, since selection of any of these known fastening mechanisms would be within the level of ordinary skill in the art.

With respect to claim 2, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to utilize a screw having a wide head that extends over substantially all the electrical contacts in order to ensure good electrical contact between the electrical contacts 21 of connector pad 20 and the corresponding electrical contacts 12 in the bottom of the header cavity 11.

With respect to claim 3, Examiner considers the head of a screw to necessarily be shaped liked a disc. In the alternative, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to utilize a screw head having a disc shape in order to minimize the size of the IMD.

With respect to claim 4, a screw necessarily comprises a threaded shaft.

With respect to claims 5-8, the electrical contacts 21 of connector 20 are shown in a symmetrical, rectangular pattern. Examiner notes that it would have been an obvious matter of design choice to arrange the contacts in any pattern around the bore, since applicant has not disclosed that the arrangement solves any stated problem or is

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for any particular purpose and it appears that the claimed invention would perform equally well with any pattern of contacts so long as the contacts of the connector align with the contacts of the header.

With respect to claim 9, the '126 Kuzma patent discloses that the connector is located within recess 11 of the header 10.

With respect to claims 10-11, the '126 Kuzma patent discloses that a sealing ridge or O-ring may be used as necessary around the periphery of connector pad 20 (see col. 4, lines 35-38) but fails to disclose a plurality of connector seals, each connector seal configured to surround an electrical contact on said case and an electrical contact on said connector when said connectors are in contact with each other. The contacts 21 of connector pad 20 may protrude slightly from the bottom of the pad and contacts 12 located on the bottom of the header may be slightly below the bottom surface of the cavity (see col. 4, lines 40-44), and thus contacts 21 resemble "male contacts" that are fitted into "female contacts 12" on the bottom of header 11. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the connector as disclosed in the '126 Kuzma patent to include a plurality of seals and/or gaskets around male contacts 21 of the connector pad 20 in order to provide a tight seal and connection between male contacts 21 and female contacts 12.

Allowable Subject Matter

8. Claims 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not show a connector device having a plurality of electrical contacts arranged to contact a plurality of electrical contacts on an electrical device case, wherein some of the electrical contacts are male contacts and a connector seal is mounted around the male contacts and a corresponding female electrical contact is sliding received between the male contact and the seal.

9. Claims 21-26 are allowed. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not show a connector device having a plurality of electrical contacts arranged to contact a plurality of electrical contacts on an electrical device case, wherein at least some of the electrical contacts are pins and some of the electrical contacts are tubes having a slot for receiving an electrical conductor and a distal end having a reduced internal diameter for contacting one of said pins.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent Application Publication 2004/0106959.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole R. Kramer whose telephone number is 571-272-8792. The examiner can normally be reached on Monday through Friday, 8 a.m. to 4:30 p.m..

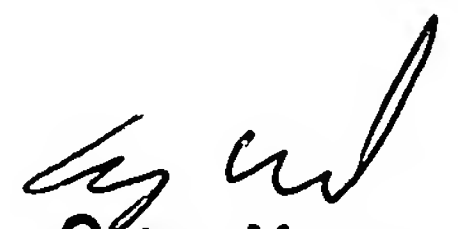
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



NRK

1/11/06


George Manuel
Primary Examiner